

Claims

1. A sensor for a diagnostic device which detects a wavelength change of reflected light using an optical spectroscope to indicate a freshness of foodstuffs or an immune condition of a human body, comprising:

5 a light receiving optical fiber through which light is transferred from a light source to a pH sensitive high molecular weight substance;

 a semi-permeable membrane film part which is filled with the pH sensitive high molecular weight substance so as to detect a pH change of a subject when the subject comes into contact with the pH sensitive high molecular weight substance, receives an output end of the light receiving optical fiber and an input end of an information transferring optical fiber, and includes a reflection member inserted therein so as to reflect the light passing through the light receiving optical fiber into the information transferring optical fiber; and

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 the information transferring optical fiber to transfer data including the freshness of the foodstuffs or a health condition of the human body therethrough when the light subjected to a wavelength interference by the pH sensitive high molecular weight substance advances into the optical spectroscope.

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2. A sensor for a diagnostic device which detects a wavelength change of reflected light using an optical spectroscope to indicate a freshness of foodstuffs or an immune condition of a human body, comprising:

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 a light receiving optical fiber through which light is transferred from a light source to a pH sensitive high molecular weight substance;

 an information transferring optical fiber to transfer data including the freshness of the foodstuffs or a health condition of the human body therethrough when the light subjected to a wavelength interference by the pH sensitive high molecular weight substance advances into the optical spectroscope; and

 a diagnostic kit insertion member made of a material having excellent light transmittance, which receives an output end of the light receiving optical

fiber and an input end of the information transferring optical fiber and has a diagnostic kit insertion groove for receiving a diagnostic kit, the diagnostic kit including a semi-permeable membrane member and the pH sensitive high molecular weight substance.

5 3. The sensor as set forth in claim 1 or 2, wherein the pH sensitive high molecular weight substance is produced by reacting a pH sensitive monomer with N,N-dimethylacrylamide as a monomer after sulfonamide reacts with methacryloyl chloride to produce the pH sensitive monomer.

10 4. The sensor as set forth in claim 3, wherein the sulfonamide is selected from the group consisting of sulfadiazine, sulfabenzamide, sulfacetamide, sulfisoxazole, sulfamethizole, sulfadimethoxine, sulfapyridine, sulfamethazine, sulfisomidine, and sulfamethoxypyridazine.